IN THE CLAIMS:

Cancel Claims 2 and 31 without prejudice, amend Claims 1, 32 and 35 as follows and add Claims 36-42:

1. (Currently amended) An apparatus for cleaving thin rods (3) of glass or quartz having a diameter below 1 mm, comprising:

an arrangement defining two mutually-spaced clamping locations (1 ~~21~~, 22) for holding a rod (3) extended between the two clamping locations (1 ~~21~~, 22),

a rod cleaving blade (27), structured and arranged to be brought into lateral contact with such a rod (3) at a desired cleaving point between said two clamping locations (21, 22), to achieve cleaving of said rod (3) at said point,

a body (28) carrying the blade (27), and

driving means (31, 33) structured and arranged to act upon said body (28) for causing a relatively steady movement of the blade (27) towards said desired cleaving point while subjecting the blade (27) to a relatively small-amplitude vibratory component of movement towards and away from said cleaving point superimposed to said relatively steady movement towards the cleaving point, wherein

said body (28) is made of a material varying its length through application of electric and/or magnetic fields therein, and

said driving means (31, 33) is structured and arranged to achieve said movements of the blade (27) by influencing said body (28) electrically and/or magnetically for creating length variations of the material thereof and make the body (28) and blade (27) vibrate with a relatively small-amplitude component having a frequency between 100 and 700 Hz ~~below 1 kHz~~ towards and away from the cleaving point for cleaving said rod

(3),

such that said blade (27) moves comparatively far in a direction toward said rod (3) in a period of time between two subsequent oscillations at a given velocity of the relatively steady movement when compared with frequency above 1 KHz , ensuring cleaving of said rod (3) with minimal strokes and improved optical flatness of a cleaved rod (3).

Claim 2. Canceled

3. (Previously Presented) An apparatus according to claim 1 structured and arranged to cleave optical fibres.

4. (Previously Presented) An apparatus according to claim 1 structured and arranged to cleave said rods having a diameter below 600 μm.

5. (Previously Presented) An apparatus according to claim 1, wherein said material of the body (28) has piezo-electric properties, said driving means (31, 33) is structured and arranged to apply a relatively steadily varying direct voltage to said body for obtaining said relatively steady movement of the blade and an alternating voltage to said body for obtaining said relatively small-amplitude vibratory component of movement of the blade, and the apparatus further comprises means (32) for controlling at least the magnitude of said relatively steadily varying direct voltage.

6. (Withdrawn) An apparatus according to claim 1, wherein the material

of said body (28) has magneto-strictive properties, said driving means is adapted to apply a relatively steadily varying magnetic field in said material for obtaining said relatively steady movement of the blade and an alternating magnetic field in the material of said body for obtaining said relatively small-amplitude vibratory component of movement of the blade, and the apparatus further comprises means for controlling at least the magnitude of said relatively steadily varying magnetic field in said body.

7. (Withdrawn) An apparatus according to claim 1, wherein said driving means (31, 33) are adapted to move the blade so that said movements of the blade take place along an arc-like path and the blade will hit the fibre in a direction making an angle with the fibre differing from 90◦ for cutting the fibre in this direction.

8. (Withdrawn) An apparatus according to claim 1, wherein the blade (27) is arranged on a free end (29) of said body in the form of a strip-like stave (28) being fixed at the other end (30), and said driving means (31, 33) is adapted to cause said movements through bending the strip-like stave towards said desired cleaving point of the rod so that said movements of the blade take place along an arc-like path and the blade will hit the fibre in a direction making an angle with the fibre differing from 90◦ for cutting the fibre in this direction.

9. (Withdrawn) An apparatus according to claim 1, wherein said arrangement comprises a first clamping means arranged to clamp said rod (3) in a first said clamping location, said first clamping means has a first clamping member (22) with

a clamp face (23) of substantially V-groove type, for receiving the rod in the groove (24), and a second clamping member (21) having a flat opposing clamp face (25) for retaining the rod in the groove, and the first clamping member having the grooved clamp face is moveable towards and away from the second clamping member for clamping and releasing said rod, respectively.

10. (Withdrawn) An apparatus according to claim 9, wherein said first clamping member (22) is received in a guide and removable from the apparatus by pushing or lifting it out of the guide for exchange.

11. (Withdrawn) An apparatus according to claim 1,wherein it comprises a second clamping means (1) arranged to clamp said rod in a second said clamping location, the second clamping means is moveable in the longitudinal direction of said rod extended between the two clamping locations, the apparatus comprises means (12) for moving the second clamping means in said longitudinal direction for extending a rod clamped by said arrangement for applying a longitudinal tension load to the rod (3), and the second clamping means is adapted to clamp said rod in a second said clamping location belonging to the part of the cleaved rod intended for later use.

12. (Withdrawn) An apparatus according to claim 11, wherein said means (1) for moving said second clamping means (1) is adapted to automatically move the rod part clamped by said second clamping means away from the cleaving point upon cleaving of the rod as a consequence of said tension load applied

therethrough.

13. (Withdrawn) An apparatus according to claim 12, wherein it further comprises means (13) for measuring said tension load and means (40) for influencing said moving means (12) for adjusting the tension load on the basis of information about the tension load from said measuring means.

14. (Withdrawn) An apparatus according to claim 13, wherein said adjusting means comprises a computer (40) communicating with the tension load measuring means (13) for adjusting said tension load to a value that may be set by the computer.

15. (Withdrawn) An apparatus according to claim 1, wherein said arrangement comprises a second clamping means (1) moveable in the longitudinal direction of said rod extended between said two clamping locations, and the apparatus comprises means (4, 12) for moving said second clamping means in said longitudinal direction and means (41) adapted to measure the position of said second clamping means in said longitudinal direction, and said measuring means is adapted to communication with a computer (40) adapted to control the movement of said second clamping means with a high accuracy on the basis of information from said position measuring means.

16. (Withdrawn) An apparatus according to claim 1, wherein it further

comprises at least one member (14) having at least one inclined surface and means (19) for moving said member laterally towards the rod (3) being clamped in only one of said two clamping locations before clamping it in the other clamping location with the inclined surface (17, 18) into abutment against the rod for influencing the rod by sliding thereof upon said surface for reaching the position desired for said other clamping location before clamping the rod in that direction.

17. (Withdrawn) An apparatus according to claim 16, wherein it comprises one or more said members (14) having together at least two said inclined surfaces (17, 18), which are oppositely inclined with respect to a plane including said two clamping locations and adapted to be moved by said moving means (19) laterally towards said rod for moving the rod to a seat in an intersection between said two inclined surfaces (17, 18) as seen in the direction from one clamping location to the other.

18. (Withdrawn) An apparatus according to claim 16, wherein said inclined surface (17, 18) or surfaces is (are) designed for adjusting the height of ~~a~~ said rod (3) at said other clamping location before the latter is clamped there.

19. (Withdrawn) An apparatus according to claim 1, wherein it comprises means (35) adapted to enable adjustment of the blade (27) for controlling the position along the blade of the blade portion used for cleaving ~~a~~ said rod, so that this position may be changed for changing said blade portion when a previous blade portion has

been worn out.

20. (Withdrawn) An apparatus according to claim 1, wherein it comprises means (37, 38) adapted to be arranged close to one end of a rod extended between the two clamping locations for drawing a waist rod portion away after said cleaving operation, ~~that~~ said driving means (31) is adapted to laterally apply a force through the blade (27) onto said waist rod portion (39) at the end thereof located at said cleaving point after cleaving the rod for influencing said waist rod portion to be released from the clamping arrangement when the latter opens for being drawn away through said means arranged at the free end of the waist rod portion.

21. (Withdrawn) A method of cleaving a thin rod of glass or quartz having a diameter below 1 mm, using the apparatus of claim 1 and comprising the steps of:

supporting said rod (3) in a working position;

bringing about a relatively steady movement of said cleaving blade (27) towards a point of lateral contact with said rod; and

superimposing on said relatively steady movement of the blade a relatively small-amplitude vibratory component of movement, said vibratory component being towards and away from the axis of the rod, wherein said vibratory component of movement having a frequency below 1 kHz is applied to the blade.

22. (Withdrawn) A method according to claim 21, wherein it further

comprises a step of clamping, prior to the supporting step, in which said rod (3) is clamped in two mutually-spaced clamping locations for holding the rod extended between these two clamping locations in said working position, and in which the clamping in a first clamping location is carried out by moving a first clamping member (22) with a clamp face (23) of substantially V-groove type, for receiving the rod in the groove (24), towards a second clamping member (21) having a flat opposing clamp face (25) for retaining the rod in groove for clamping the rod.

23. (Withdrawn) A method according to claim 22, wherein it further comprises a step of adjusting the position of a rod (3) being clamped in only one of said two clamping locations before clamping it according to said clamping step in the other clamping location, in which at least one member (14) having at least one inclined surface (17, 18) is moved laterally towards said rod with the inclined surface into abutment against the rod for influencing the rod by sliding thereof upon said surface for reaching a position desired for said other clamping location.

24. (Withdrawn) A method according to claim 23, wherein in said adjusting step one or more said members (14) having together at least two said inclined surfaces (17, 18), which are oppositely inclined with respect to a plane including said two clamping locations, are moved laterally towards said rod (3) for moving the rod to a seat in an intersection between said two inclined surfaces as seen in the direction from one clamping location to the other.

25. (Withdrawn) A method according to claim 21, wherein it further comprises a step, carried out prior to said supporting step, of clamping said rod (3) in two mutually-spaced clamping locations for holding the rod extended between these two clamping locations, after this clamping step at least one of said two clamping locations is moved in the longitudinal direction of said clamped rod for increasing the distance to the other clamping location and by that applying a longitudinal tension load to the rod, and said tension load is measured and the movement of the clamping locations apart is controlled on the basis of information about the tension load measured for adjusting the tension load.

26. (Withdrawn) A method according to claim 21, wherein it comprises a step of clamping said rod (3), carried out prior to said supporting step, and in which said rod is clamped in two mutually-spaced clamping locations for holding the rod extended between these two clamping locations in said working position, after said cleaving operation has been completed said blade (27) is moved into contact with a waist rod portion (39) resulting from said cleaving for applying a force onto said waist rod portion at the end thereof located at a point for said cleaving, and a releasing of the clamping action in the clamping point of said waist rod portion is co-ordinated with a suction away of that portion promoted by said force applied through the blade on said end of the waist rod portion.

27. (Withdrawn) A method according to claims 26, wherein the clamping location belonging to the rod portion for later use is after the cleaving operation moved

in the direction away from said cleaving point before the blade (27) is moved into contact with said end of the waist rod portion (39).

28. (Withdrawn) A computer program directly loadable into the internal memory of a computer, comprising software code portions for controlling the steps of claim 21 when said program is run on the computer.

29. (Withdrawn) A computer program according to claim 28, provided at least partially through a network as the Internet.

30. (Withdrawn) A computer readable medium, having a program recorded thereon, where the program is to make a computer control the steps of claim 21.

Claim 31. Canceled

32. (Currently Amended) Apparatus according to claim ~~31~~ 1 wherein said drive means (33) is structured and arranged to vibrate the blade with a frequency between 250 and 450 Hz.

33. (Previously Presented) An apparatus according to claim 4, structured and arranged to cleave said rods having a diameter below 300 µm.

34. (Previously Presented) An apparatus according to claim 33, structured and arranged to cleave said rods having a diameter between 50 and 200 µm.

35. (Currently Amended) An apparatus according to claim 1, structured and arranged to always cleave the rods (3) to provide end surfaces within ± 0.17° from being exactly perpendicular to a longitudinal axis of the rods (3).

36. (New) An apparatus according to claim 32 structured and arranged to cleave said rods having a diameter below 600 µm.

37. (New) An apparatus according to claim 36 structured and arranged to cleave said rods having a diameter below 300 µm.

38. (New) An apparatus according to claim 37 structured and arranged to cleave said rods having a diameter between 50 and 200 µm.

39. (New) Apparatus according to claim 5 wherein said drive means (33) is structured and arranged to vibrate the blade with a frequency between 250 and 450 Hz.

40. (New) An apparatus according to claim 39 structured and arranged to cleave said rods having a diameter below 600 µm.

41. (New) An apparatus according to claim 36 structured and arranged to cleave said rods having a diameter below 300 μm.

42. (New) An apparatus according to claim 37 structured and arranged to cleave said rods having a diameter between 50 and 200 μm.